AMENDMENTS TO THE CLAIMS

Amendments to the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein a portion or at least a portion of each ~~one~~ of the first and ~~or~~ second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

2. (Original) The implant of claim 1 wherein the implant is placed within a joint selected from the group consisting of: knee, hip, shoulder, elbow, wrist, finger, toe, and ankle.

3. (Original) The implant of claim 1 wherein the superior surface and the inferior surface have a three dimensional shape that substantially matches the shape of at least one of the articular surface that the superior surface abuts and the inferior surface abuts.

4. (Original) The implant of claim 1 wherein the implant has a thickness of a cartilage defect in a patient.

5. (Original) The implant of claim 1 wherein the implant has a thickness of 85% of a cartilage defect in a patient.

6. (Original) The implant of claim 1 wherein the implant has a thickness of between 65%-100% of a cartilage defect of a patient.

7. (Original) The implant of claim 1 wherein the implant has a thickness of a cartilage defect in a patient plus an offset value.

8. (Original) The implant of claim 1 wherein the implant has a thickness of 85% of a cartilage defect in a patient plus an offset value.

9. (Original) The implant of claim 1 wherein the implant has a thickness of between 65%-100% of a cartilage defect of a patient plus an offset value.

10. (Original) The implant of claim 1 wherein the implant is constructed of a material comprising metal or metal alloy.

11. (Original) The implant of claim 1 wherein the material comprises one or more biologically active materials.

12. (Original) The implant of claim 10 wherein the implant is coated with a biologically active material.

13. (Original) The implant of claim 1 wherein the implant is comprised of a metal or metal alloy and a polymer.

14. (Previously Presented) The implant of claim 1 further having a structure for stabilization on at least one of the first surface or the second surface selected from the group consisting of: ridges, lips and thickenings.

15. (Previously Presented) The implant of claim 14 further having a plurality of structures for stabilization.

16. (Previously Presented) The implant of claim 15 wherein the stabilization mechanism engages the tibial spine.

17. (Original) The implant of claim 1 further having a peripheral structure selected from the group consisting of ridges and lips.

18. (Original) The implant of claim 17 wherein the peripheral structure extends along an entire perimeter of the implant.

19. (Original) The implant of claim 18 wherein the peripheral structure extends along a portion of a perimeter of the implant.

20. (Original) The implant of claim 1 wherein each of the first surface and second surface have a slope relative to a longitudinal axis through the implant and further wherein the slope of the first surface relative to the slope of the second surface is selected from the group consisting of: positive, negative, and null.

21. (Original) The implant of claim 1 wherein the implant approximates the shape of one of the first and second articular surface.

22. (Original) The implant of claim 21 wherein the implant is selected from a library of implants.

23. (Original) The implant of claim 1 wherein the implant changes configuration after insertion into a joint.

24. (Original) The implant of claim 1 wherein the implant changes configuration during loading.

25. (Original) The implant of claim 1 wherein the implant further comprises a first component and a second component.

26. (Original) The implant of claim 25 wherein the first and second component are one of: integrally formed, indivisibly formed, interconnectedly formed, and interdependently formed.

27. (Original) The implant of claim 25 wherein the first component engages the joint in at least one of fixedly, slideably, rotatably.

28. (Original) The implant of claim 25 wherein the second component engages the joint in at least one of fixedly, slidably, and rotatably.

29. (Previously Presented) The implant as in any one of claims 25, 26, 27, or 28 wherein the first component engages the second component.

30. (Previously Presented) The implant as in any one of claims 25, 26, 27, or 28 wherein the first component fits within the second component.

31. (Previously Presented) The implant as in any one of claims 25, 26, 27, or 28 wherein the first component slideably engages the second component.

32. (Previously Presented) The implant as in any one of claims 25, 26, 27, or 28 wherein the first component rotatably engages the second component.

33. (Previously Presented) The implant as in any one of claims 25, 26, 27, or 28 wherein a portion of the implant has a magnet.

34. (Currently Amended) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface

opposes a second articular surface of the joint and further wherein a portion or at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, the one of the first and second articular surfaces being one of a substantially uncut articular cartilage surface and a substantially uncut subchondral bone surface, wherein the implant has a plurality of components, and wherein a first component of the plurality of components engages a second component of the plurality of components in at least one of slideably and rotatably.

35. (Original) The implant of claim 34 wherein a first component of the plurality of components engages the joint in at least one of fixedly, slideably, and rotatably.

36. (Original) The implant of claim 34 wherein a second component of the plurality of components engages the joint in at least one of fixedly, slidably, and rotatably.

37. (Cancelled)

38. (Previously Presented) The implant as in any one of claims 34, 35 or 36 wherein the first component of the plurality of components fits within the second component of the plurality of components.

39. (Previously Presented) The implant as in any one of claims 34, 35 or 36 wherein the first component of the plurality of components slideably engages the second component of the plurality of components.

40. (Previously Presented) The implant as in any one of claims 34, 35 or 36 wherein the first component of the plurality of components rotatably engages the second component of the plurality of components.

41. (Previously Presented) The implant as in any one of claims 34, 35 or 36 wherein the first component of the plurality of components rotatably and slidably engages the second component of the plurality of components.

42. (Original) The implant of claim 1 wherein the implant has a shape formed along a perimeter selected from the group consisting of: circular, elliptical, ovoid, kidney shaped, substantially circular, substantially elliptical, substantially ovoid, and substantially kidney shaped.

43. (Original) The implant of claim 1 wherein the implant has a cross-sectional shape of at least one of an inferior surface and a superior surface selected from the group consisting of spherical, hemispherical, aspherical, convex, concave, substantially convex, and substantially concave.

44. (Original) The implant of claim 1 wherein the implant is a cartilage defect conforming implant.

45. (Original) The implant of claim 1 wherein the implant is a cartilage projected implant.

46. (Original) The implant of claim 1 wherein the implant is a subchondral bone conforming implant.

47. (Original) The implant of claim 1 wherein the implant is surgically implanted via an incision of 10 cm or less.

48. (Original) The implant of claim 1 wherein the implant is surgically implanted via an incision of 6 cm or less.

49. (Original) The implant of claim 1 wherein the implant is surgically implanted via an incision of 4 cm or less.

50. (Original) The implant of claim 1 wherein the range of motion of the joint is restored to between 80-99.9% of normal joint motion.

51. (Original) The implant of claim 1 wherein the range of motion of the joint is restored to between 90-99.9% of normal joint motion.

52. (Original) The implant of claim 1 wherein the range of motion of the joint is restored to between 95-99.9% of normal joint motion.

53. (Original) The implant of claim 1 wherein the range of motion of the joint is restored to between 98-99.9% of normal joint motion.

54. (Original) The implant of claim 1 wherein the joint is a knee joint and wherein a shape formed along a perimeter selected from the group consisting of: circular, elliptical, ovoid, kidney shaped, substantially circular, substantially elliptical, substantially ovoid, and substantially kidney shaped.

55. (Original) The implant of claim 1 wherein the joint is a knee joint and wherein the superior surface of the implant is substantially convex.

56. (Original) The implant of claim 1 wherein the joint is a knee joint and wherein the inferior surface of the implant is substantially concave.

57. (Original) The implant of claim 1 wherein the joint is a knee joint and wherein the superior surface of the implant is comprised of convex and concave sections.

58. (Original) The implant of claim 1 wherein the joint is a knee joint and the inferior surface of the implant is substantially concave.

59. (Original) The implant of claim 1 wherein the joint is a hip joint and wherein a cross-section of the implant is selected from the group consisting of: spherical and aspherical.

60. (Original) The implant of claim 1 wherein a periphery of the implant is of greater thickness than a central portion of the implant.

61. (Original) The implant of claim 1 wherein a central portion of the implant is of greater thickness than a periphery.

62. (Original) The implant of claim 1 having an anterior portion, posterior portion, lateral portion and medial portion wherein the implant has a thickness along the posterior portion of the device that is equal to or greater than a thickness of at least one of the lateral, medial and anterior portion of the implant.

63. (Original) The implant of claim 1 having an anterior portion, posterior portion, lateral portion and medial portion wherein the implant has a thickness along a posterior portion of the device that is equal to or less than a thickness of at least one of the lateral, medial and anterior portion of the implant.

64. (Original) The implant of claim 1 having an anterior portion, posterior portion, lateral portion and medial portion wherein the implant has a thickness along a medial portion of the device that is equal to or less than a thickness of at least one of a anterior portion, posterior portion, and lateral portion.

65. (Original) The implant of claim 1 having an anterior portion, posterior portion, lateral portion and medial portion wherein the implant has a thickness along a medial portion of the device that is equal to or greater than a thickness of at least one of a anterior portion, posterior portion, and lateral portion.

66. (Previously Presented) The implant as in any one of claims 25 or 34 having an anterior portion, posterior portion, lateral portion and medial portion wherein at least one component of the implant has a thickness along the posterior portion of the device that is equal to or greater than a thickness of at least one of the lateral, medial and anterior portion of the implant.

67. (Previously Presented) The implant as in any one of claims 25 or 34 having an anterior portion, posterior portion, lateral portion and medial portion wherein at least one component of the implant has a thickness along a posterior portion of the device that is equal to or less than a thickness of at least one of the lateral, medial and anterior portion of the implant.

68. (Previously Presented) The implant as in any one of claims 25 or 34 having an anterior portion, posterior portion, lateral portion and medial portion wherein at least one component of the implant has a thickness along a medial portion of the device that is equal to or less than a thickness of at least one of a anterior portion, posterior portion, and lateral portion.

69. (Previously Presented) The implant as in any one of claims 25 or 34 having an anterior portion, posterior portion, lateral portion and medial portion wherein at least one component of the implant has a thickness along a medial portion of the device that is equal to or greater than a thickness of at least one of a anterior portion, posterior portion, and lateral portion.

70. (Currently Amended) A procedure for repairing a joint comprising the step of arthroscopically implanting or implanting with arthroscopic assistance an implant having a first and second surface wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of an articular surface so as to have a plurality of convexities and a plurality of concavities, such that that movement of the implant in the joint is limited without an attachment mechanism.

71. (Original) The procedure of claim 70 further comprising the step of analyzing an image of the joint prior to implantation.

72. (Original) The procedure of claim 70 wherein the image is a three-dimensional image selected from the group consisting of MRI, CT, x-ray, and combinations thereof.

73. (Original) The procedure of claim 70 further comprising the step of making an incision of 10 cm or less.

74. (Original) The procedure of claim 70 further comprising the step of making an incision of 6 cm or less.

75. (Original) The procedure of claim 70 further comprising the step of making an incision of 4 cm or less.

76. (Currently Amended) A method of making an implant suitable for a joint, the method comprising the steps of: determining three-dimensional shapes of one or more articular surface of the joint; and producing an implant having a first surface and a second surface, wherein the first surface and second surface oppose a first and second articular surface of the joint and further wherein a portion or all of each ~~at least one~~ of the first ~~or~~ and second surfaces substantially matches the three-dimensional shape of the articular surface so as to have a plurality of convexities and a plurality of concavities, such that that movement of the implant in the joint is limited without an attachment mechanism.

77. (Original) The method of claim 76 wherein the three-dimensional shape is determined by obtaining an image of the joint.

78. (Original) The method of claim 77 wherein the image is selected from the group consisting of MRI, CT, x-ray, and combinations thereof.

79. (Currently Amended) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that approximates the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

80. (Currently Amended) A cartilage defect conforming implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

81. (Currently Amended) A cartilage defect conforming implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that approximates the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

82. (Currently Amended) A cartilage projected implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional

shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

83. (Currently Amended) A cartilage projected implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that approximates the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

84. (Currently Amended) A subchondral bone conforming implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

85. (Currently Amended) A subchondral bone conforming implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that approximates the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

86. (Currently Amended) A subchondral bone projected implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint

and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

87. (Currently Amended) A subchondral bone projected implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that approximates the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

88. (Currently Amended) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and second surface opposes a second articular surface of a the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism, and further wherein the implant restores joint movement to from 90-99.9% of natural joint mobility.

89. (Currently Amended) An implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and second surface opposes a second articular surface of a the joint and further wherein at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the

joint is limited without an attachment mechanism, and further wherein the implant can withstand 100% of the shear forces applied to the joint.

90. (Currently Amended) An implant suitable for a joint of a mammal wherein the joint has a first joint surface and a second joint surface wherein the implant has a first surface and a second surface wherein the first surface opposes at least a portion of a first articular surface and the second surface opposes at least a portion of a second articular surface and further wherein at least a portion of each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first joint surface and the second joint surface so as to have a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

91. (Currently Amended) A method for repairing a joint, the joint having a biomechanical axis, the method comprising arthroscopically implanting or implanting with arthroscopic assistance an implant having a first and second surface wherein each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of an articular surface, so as to have at least one of a plurality of convexities and a plurality of concavities, such that ~~that~~ movement of the implant in the joint is limited without an attachment mechanism.

92. (Currently Amended) A method for repairing a joint, the method comprising arthroscopically implanting or implanting with arthroscopic assistance an implant having a first and second surface wherein each ~~at least one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of an articular surface so as to have a plurality of convexities and a plurality of concavities, wherein implanting includes aligning the implant with the biomechanical axis.

93. (Currently Amended) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface

opposes a second articular surface of the joint and further wherein a portion or at least a portion of each ~~one~~ of the first ~~or~~ and second surfaces has a three-dimensional shape that substantially matches the shape of one of the first and second articular surfaces so as to have a plurality of convexities and a plurality of concavities, the one of the first and second articular surfaces being one of substantially uncut cartilage and substantially uncut bone, the one of the first or second surfaces including an attachment mechanism for fixing the implant to the one of the first and second articular surfaces.

94. (Previously Presented) The implant according to claim 93, wherein the implant replaces less than 80% of the one of the first and second articular surfaces of the joint.

95. (Previously Presented) The implant according to claim 93, wherein the implant replaces less than 50% of the one of the first and second articular surfaces of the joint.

96. (Previously Presented) The implant according to claim 93, wherein the implant replaces less than 20% of the one of the first and second articular surfaces of the joint.

97. (New) An articular implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint, at least one of the first and second articular surfaces being one of a substantially uncut articular cartilage surface and a substantially uncut subchondral bone surface, wherein the implant has a plurality of components, and wherein a first component of the plurality of components engages a second component of the plurality of components in at least one of slideably and rotatably, at least one of the first and second components having a cross-sectional shape of at least one of an inferior surface and a superior surface selected from the group consisting of spherical, hemispherical, aspherical, convex, concave, substantially convex, and substantially concave.

98. (New) An interpositional implant having a first surface and a second surface wherein the first surface opposes a first articular surface of a joint and the second surface opposes a second articular surface of the joint, wherein at least a portion of the first surface has a three-dimensional shape that matches at least a portion of the second surface.

99. (New) The implant according to claim 98, wherein the three-dimensional shape includes a plurality of concavities and convexities.

100. (New) The implant according to claim 98, wherein the three-dimensional shape includes a plurality of concavities.

101. (New) The implant according to claim 98, wherein the three-dimensional shape includes a plurality of convexities.

102. (New) The implant according to claim 98, wherein the three-dimensional shape includes at least one of a concavity and at least one of a convexity.

103. (New) The implant according to claim 98, wherein the three-dimensional shape further matches the shape of at least a portion of one of the first articular surface and the second articular surface.

104. The implant according to claim 103, wherein the at least a portion of one of the first articular surface and the second articular surface is a weight-bearing surface.

105. (New) The implant according to claim 98, wherein the three-dimensional shape limits movement of the implant in the joint without an attachment mechanism.

106. (New) The implant according to claim 98, wherein the first and second articular surfaces include at least one of surrounding and/or adjacent cartilage, surrounding and/or adjacent tissue and surrounding and/or adjacent subchondral bone.

107. (New) The implant according to claim 98, further comprising a surface substantially parallel to a portion of an adjacent articular structure.

108. (New) The implant according to claim 107, wherein said adjacent structure is at least one of cartilage, bone, and meniscus.

109. (New) The implant according to claim 107, wherein the surface limits movement of the implant.

110. (New) An implant comprising a structure that is adjacent to an articular structure other than an articular surface, such that movement of the implant in the joint is limited without an attachment mechanism.

111. (New) The implant according to claim 110, wherein the articular surface is a soft-tissue.

112. (New) The implant according to claim 111, wherein the soft-tissue is meniscus.

113. (New) A method for making an interpositional implant for a joint, the method comprising selecting an implant thickness to minimize ligamentous laxity.

114. (New) The method of claim 113, further comprising at least one of producing and selecting an implant having a first surface that conforms to the three-dimensional shape of an articular surface of a joint.

115. (New) The method according to claim 114, wherein the articular surface is surgically prepared to accept the implant.

116. (New) The method according to claim 114, wherein the articular surface is substantially uncut to accept the implant.

117. (New) The method according to claim 114, wherein the articular surface is at least a portion of a tibial plateau.

118. (New) The method according to claim 114, wherein the first surface has a plurality of concavities and convexities.

119. (New) The method according to claim 114, wherein the first surface has one or more concavities.

120. (New) The method according to claim 114, wherein the first surface has one or more convexities.

121. (New) The method according to claim 114, wherein the first surface has at least one concavity and at least one convexity.

122. (New) The method according to claim 112, wherein the joint is one of a knee and a hip.